

Scandinavia as it is in England. There was no specimen of this species in the collection of American Anthomyidæ which I received some years ago from the Museum at Cambridge, Mass.

"Your specimen exactly corresponds with some of the English ones which I possess. It is rather a variable species; the 1st and 2nd joints of the antennæ are sometimes nearly black, when it has been named *A. mitis* by Meigen; but they are mostly rufous. One characteristic point is that the palpi should be entirely yellow or red, *not* black at the tips as in *Pegomyia nigratarsis* Zett., a species which also mines the leaves of the Dock, in the larva state. I have bred both species from the same leaf of *R. obtusifolius*."

ADDITIONS TO CANADIAN LISTS OF COLEOPTERA.

BY W. HAGUE HARRINGTON, OTTAWA.

(Continued from page 47.)

CORRECTION.—Page 46, line 9, for "Uhler" read Ulke.

ELATERIDÆ.

Fornax badius, Mels. One specimen. The only list in which I have found this species recorded is that by Mr. Schwarz, of Florida Coleoptera.

Hornii Bv. One specimen.

Hypocoelus frontosus, Say. One specimen (given to Dr. LeConte).

Sarpedon scabrosus, Bv. One specimen of this very rare species was taken by me while beating shrubbery (June, 1880), and another was captured about the same time and given to me by Mr. Fletcher. Both were ♀, this sex having been previously unknown. They are now in the respective collections of Drs. LeConte and Horn.

Elater nigrinus, Payk. One specimen. Recorded from Michigan and Lake Superior.

**Megapenthes stigmus*, Lec. This species is by no means rare, yet I do not find it in any of the lists which I have at hand, except that of Lake Superior species.

Agriotes oblongicollis, Mels. Rare; same localities.

Limoniæ aeger, Lec. Rare. A Lake Superior species.

* *Corymbites vernalis* Hentz. This pretty species is some seasons quite common on the flowers of Choke-cherry, and is also found on those of Hawthorn.

* *fallax* Say. Captured by beating oak, etc. Occurs with *Oxygonus obesus*, which it much resembles, but which may be readily distinguished by the elytra being spinose at tip.

* *cruciatus* Linn. (= *pulcher* Lec.) This handsome beetle is taken occasionally upon Beech, and it is probable that the larvæ live in the decaying trees.

BUPRESTIDÆ.

The species of this family, as of the preceding one, are well represented here, and the individuals of some of them are very abundant.

* *Anthaxia inornata* Rand. I find no record of this species in any of my lists, so that it must be rare. Three or four specimens have been taken here, but unlike *viridicornis* and *viridifrons* (which occur abundantly on various trees in June and July), it appears early in the spring, and is found on such flowers as Trillium.

Chrysobothris floricola Gory. One specimen. The species is recorded from Buffalo, Lake Superior and Florida (rare), so that it is widely distributed.

pusilla Lap. The only mention I find of this pretty little species is in LeConte's "Revision of the Buprestidæ of the United States," 1859, where it is given as from the "Middle and Southern States. Rare." Only one specimen taken by me; date not recorded.

* *Sexsignata* Say. Rare.

* *Agilus interruptus* Lec. Rare. Occurs at Buffalo.

putillus Say. One specimen of this diminutive species, which I find also recorded from Michigan.

Sp. ? A specimen easily distinguished from any other small species by its less elongated form. I was informed by Dr. Leconte that it was unknown to him, and Dr. Horn states that the species is not in his cabinet.

LAMPYRIDÆ.

Podabrus nothoides Lec. ? My determination of this species is by Dr. Leconte's "Synopsis of the Lampyridæ of the United States," where it is described as a new species, occurring in Mass. and at Lake Superior. Rare.

MALACHIDÆ.

Malachius Ulkei Horn. Three ♂ specimens captured while beating bushes. Dr. Leconte, on seeing these beetles, considered them to belong to a new species, but Dr. Horn, on examining one, immediately recognized it as belonging to the above species, which was founded by him upon a specimen from Dakota, loaned by Mr. Ulke, in whose collection it now is. With the exception of *M. æneus* Linn. (an introduced species in the Eastern States) the members of this genus were formerly considered peculiar to the Western fauna, being found chiefly in California. I now find that there is a specimen in the collection of the late Mr. Billings, labelled "*Anthocomus lateralis*," making four specimens (♂) from this locality. The female yet remains to be discovered.

PTINIDÆ.

Hemiptychus punctatus Lec. Rare.

Dinoderus punctatus Say. Rare.

SCARABÆIDÆ.

The species of this interesting family are not numerous in these northern latitudes, nor are the individuals, except of the commoner species, in any way abundant.

Aphodius hyperboreus Lec. A dead specimen (♀) found floating on the South Nation River at Casselman. The species was described by Leconte in Agass. Lake Sup., p. 225, and occurs from Lake Sup. to Oregon.

CERAMBYCIDÆ.

Phymatodes thoracicus Muls. I am indebted to Mr. Fletcher for a pair of these longicorns, which I believe are an introduced European species. Mr. Fletcher was fortunate enough to obtain several of them from an old wine-cask.

Callidium æreum Newm. I am also indebted to Mr. Fletcher for a fine specimen of this beetle taken upon pine at Hull.

* *Purpuricenus humeralis* Fab. This handsome beetle is already recorded from Canada, but from what localities I have not been able to find out. In the classification of Leconte and Horn it is stated to occur in the Middle and Western States. None of the lists which I have contain it, so that it must be comparatively rare. I was

therefore much pleased to capture a pair last summer. The ♂ was taken near Rideau Hall on 27th June; the ♀ on Sparks Street in the centre of the city, on 11th July.

Microclytus gazellula Hald. is also a species belonging to the Middle States, and is given in my Michigan and Buffalo lists. It is an elegant little beetle with the ant-like form and movements of *Cyrtophorus verrucosus*, which it closely resembles. Only three specimens found, on Hickory and on Sumac flowers in July.

Leptura saucia Lec. This *Leptura* occurs on flowering shrubs, and is the smallest species which I have taken. It is rare here, and is not given in any of my lists.

Monohammus maculosus Hald. A fine ♂ of this species was captured late in September three or four years ago. As it resembles pretty closely the very common beetle, *M. confusus*, I thought I might have overlooked specimens previously, but a careful watch since then has not revealed any. It is recorded from Lake Superior.

Goes pulverulentus Hald. This fine insect is rare on Hickory during July. Occurs also at Buffalo.

Leptostylus parvus Lec. One specimen of this rare beetle.

Liopus punctatus Hald. Rare, only three captured. Neither this nor the preceding species is included in any lists to which I have referred.

Saperda mutica Say. On the 15th July, 1882, I captured a pair of these prettily marked beetles on decaying willows. It is recorded from Buffalo.

(To be Continued.)

THE SURVIVAL OF THE FITTEST AMONG CERTAIN SPECIES OF PTEROSTICHUS AS DEDUCED FROM THEIR HABITS.

BY JOHN HAMILTON, ALLEGHENY, PA.

The ultimate extinction of many species of Coleoptera in the vicinity of large cities is unquestionable, especially of the larger Carabidæ. The conditions of life with some are such as admit of no adaptation to the methods of civilization, and for them no refuge from the encroachments of agriculture will eventually remain. They are now retiring, retiring, and